

It is asserted that these amendments do not add new matter and are supported by the specification and claims as originally filed. Entry of these claims is respectfully requested.

Amended claims and new claims find basis as mentioned in the chart below:

<u>Amended or new Claims</u>	Basis	
	In the claims as filed	In the specification
18 Amended	1, 2, 3 and 4	
22 Amended	5	
23 Amended	6	
24 Amended	7	
32 Amended	14	
33 Amended	14	
34 Amended	15	
36 Amended		Page 1, lines 4-12
37 Amended	17	

REMARKS

Claims 18-39 have been rejected.

Claims 18, 22-24, 32-34, 36 and 37 have been amended.

Claims 25-27, 29-31 and 35 are kept unchanged.

Claims 19-21, 28, 38 and 39 are canceled.

Claims 18, 22-27, and 29-37 are pending in the application.

The term "[lacuna]" has been inserted by the translator in the English translation of the French PCT application because the translator supposedly wanted to pinpoint a possible missing item in the French text. Applicants do not share translator's opinion and herewith submit amendments to the specification that simply delete said "[lacuna]".

Moreover, explicit support has been made in the specification for:

“at least one di-or polymethylene linkage”, which finds support in claim 3 as filed;

“substituted at most once”, which finds support in claim 6 as filed;

“imidazolinedione, isocyanuric, biuret, allophanate or polyol carbamate functional group”, which finds support in claim 7 as filed; and,

a “coating composition”, which finds support in claim 17 as filed.

For these reasons, Applicants respectfully request that the Examiner now reconsider and withdraw the objections to the specification.

The rejection of claim 33 under 35 U.S.C. 112, first paragraph, is now moot because claim 33 has been amended to read - -at most- -, in lieu of “at least”

Claims 22, 24, 32 and 34 are rejected under 35 U.S.C. 35 U.S.C. 112, second paragraph.

Claims 22 and 24 have been amended to find an antecedent support for the “(co)oligomers”.

Claim 32 has been amended to find an antecedent support for the “isocyanate functional groups”.

Claim 34 has been amended to find an antecedent support for the “the molten masked isocyanate”.

For these reasons, Applicants respectfully request that the Examiner now reconsider and withdraw the rejection of claims 22, 24, 32 and 34 under 35 U.S.C. 35 U.S.C. 112, second paragraph

The rejection of claims 18, 19, 21, 28, 29, and 30, and 25 under 35 U.S.C. 102 (b) as being anticipated by Gras, US Patent 5,149,805, is respectfully traversed and is addressed in light of the comments below.

The instant invention relates to an isocyanate composition comprising:

a masked isocyanate compound at least partially aliphatic, exhibiting an aliphatic backbone which comprises, in said backbone, at least one di- or polymethylene linkage and no masked isocyanate functional groups carried by an endocyclic cycloaliphatic carbon, and

a nonmasked cycloaliphatic isocyanate compound.

Gras does not disclose a masked isocyanate compound having the combination of all the following features:

- at least partially aliphatic
- exhibiting an aliphatic backbone which comprises, in said backbone, at least one di- or polymethylene linkage, and
- exhibiting no masked isocyanate functional groups carried by an endocyclic cycloaliphatic carbon.

For these reasons, Applicants respectfully request that the Examiner now reconsider and withdraw the rejection of claims 18, 19, 21, 28, 29, and 30, and 25 under 35 U.S.C. 102 (b) as being anticipated by Gras, US Patent 5,149,805.

The rejection of claims 18-32, and 34-39 under 35 U.S.C. 102 (b) as being anticipated by EP 822210 (US counterpart 6,291,624), is respectfully traversed and is addressed in light of the comments below.

As above indicated for the Gras patent, EP 822210 does not disclose a masked isocyanate compound having the combination of all the following features:

- at least partially aliphatic
- exhibiting an aliphatic backbone which comprises, in said backbone, at least one di- or polymethylene linkage, and
- exhibiting no masked isocyanate functional groups carried by an endocyclic cycloaliphatic carbon.

The instant invention is also non-obvious vis-à-vis the Gras patent and EP 822210 by the additional use of a nonmasked cycloaliphatic isocyanate compound.

The problem solved by the instant invention can thus be regarded as providing a technique which makes it possible to increase the glass transition temperature of the masked aliphatic isocyanates. The claimed solution comprising the addition of a nonmasked cycloaliphatic isocyanate compound to a masked isocyanate compound is inventive and for the following reasons.

On the contrary, the two cited documents basically disclose a method for the production of masked isocyanate compositions which can be used in powder coatings which consists in reducing the amount of free isocyanate compounds. More particularly, according to EP 822210, the achievement of a sufficiently high glass transition temperature is conditioned by observing a content of residual isocyanate functional groups of less than 0.5%. In D1, the unreacted diisocyanate is removed by distillation, so as to limit the content of nonmasked isocyanate in the mixture.

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AMENDMENT

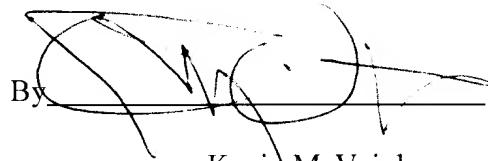
For these reasons, Applicants respectfully request that the Examiner now reconsider and withdraw the rejection of claims 18-32, and 34-39 under 35 U.S.C. 102 (b) as being anticipated by EP 822210 (US counterpart 6,291,624).

In view of the preceding remarks, it is asserted that the patent application is in condition for allowance. Should the Examiner have any question concerning these remarks that would further advance prosecution of the claims to allowance, the examiner is cordially invited to telephone the undersigned attorney at (609) 860-4194. A notice of allowance is respectfully solicited.

Respectfully submitted,

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Document2

Marked up amended specification and claims

In the specification:

On page 6, please amend the third paragraph as follows:

These aims and others which will become apparent subsequently are achieved by means of an isocyanate composition comprising both a masked isocyanate compound and a nonmasked cycloaliphatic isocyanate compound and the use of said composition as ingredient of a coating, advantageously in the powder form.

On page 6, between lines 13 and 14, please add the following new paragraph:

(New) The masked isocyanate compound exhibits an aliphatic backbone which comprises, in said backbone, at least one di- or polymethylene linkage. The masked isocyanate compound results from a polymethylene diisocyanate monomer, from one of the (co)oligomers of the latter or from one of its (co)oligocondensates. The polymethylene diisocyanate monomer is tetra-, penta- or hexamethylene diisocyanate, substituted at the most once. The (co)oligomers or (co)oligocondensates comprise at least one imidazolidinedione, isocyanuric, biuret, allophanate or polyol carbamate functional group.

Please amend the third paragraph of page 9 as follows:

This is the case with the monomers which exhibit polymethylene $(CH_2)_\pi$ linkages, where π represents an integer from 2 to 10, advantageously from 4 to 8. These polymethylene linkages result in excellent mechanical properties. In addition, it is desirable for at least one, preferably all, ~~these~~ ^{of these} linkages to be free to rotate and thus exocyclic.

Please amend the paragraph from page 11, line 22 to page 12, line 2 as follows:

These monomers are advantageously such that at least one, advantageously both, ~~[lacuna]~~ isocyanate functional groups are distant from the closest ring by at most one carbon and preferably is connected directly to it. In addition, these cycloaliphatic monomers advantageously exhibit at least one, preferably two, isocyanate functional groups chosen from secondary, tertiary or neopentyl isocyanate functional groups.

Please amend the paragraph from page 14, line 25 to page 15, line 2, as follows:

2.5 to 3 ml of 1,2-dichlorobenzene (solvent) ~~[lacuna]~~ the equivalent of 1-octanol (5 mmol, i.e. 0.61 g, and optionally with the catalyst to be tested with the masking group) are added.

Please amend the second paragraph of page 15 as follows:

The reaction medium is subsequently brought to the test temperature. Heating is then carried out for 6 h at the test temperature, so as to deblock and thus render reactive the isocyanate functional groups. On completion of the reaction, the solvent is removed by vacuum distillation and the residue is analyzed by NMR, mass and infrared ~~[lacuna]~~.

In the claims:

Please amend claim 18 as follows:

18. (Amended) An isocyanate composition comprising:
a masked isocyanate compound at least partially aliphatic, exhibiting an aliphatic backbone which comprises, in said backbone, at least one di- or polymethylene

linkage, and no masked isocyanate functional groups carried by an endocyclic cycloaliphatic carbon, and

a nonmasked cycloaliphatic isocyanate compound.

Please cancel claims 19-21

Please amend claim 22 as follows:

22. (Amended) A composition as claimed in claim 18, wherein said masked isocyanate compound results from a polymethylene diisocyanate monomer, ~~from one of the~~ (co)oligomers of ~~the latter~~ said monomer or ~~from one of its~~ (co)oligocondensates of said monomer.

Please amend claim 23 as follows:

23. (Amended) A composition as claimed in claim 18 ~~22~~, wherein said polymethylene diisocyanate monomer is tetra-, penta- or hexamethylene diisocyanate, substituted at the most once.

Please amend claim 24 as follows:

24. (Amended) A composition as claimed in claim 22 ~~18~~, wherein said (co)oligomer or (co)oligocondensate comprises at least one imidazolidinedione, isocyanuric, biuret, allophanate or polyol carbamate functional group.

Please cancel claim 28.

Please amend claim 32 as follows:

32. (Amended) A composition as claimed in claim 18, wherein the unmasked isocyanate ~~functional groups~~ compound and the masked isocyanate ~~functional groups~~

compound present a ratio in equivalents: unmasked isocyanate compound/ masked isocyanate of at most equal to 1.

Please amend claim 33 as follows

33. (Amended) A composition as claimed in claim 32, wherein the ratio is at ~~least~~ most equal to 0.7.

Please amend claim 34 as follows

34. (Amended) A process for the preparation of a composition as defined in claim 18, wherein the unmasked isocyanate is mixed in the ~~molten~~ masked isocyanate which is in a molten state.

Please amend claim 36 as follows:

36. (Amended) A powder painting composition, comprising a composition as defined in claim 18.

Please amend claim 37 as follows:

37. (Amended) A powder coating composition, comprising a composition as defined in claim 18.

Please cancel claims 38 and 39.